

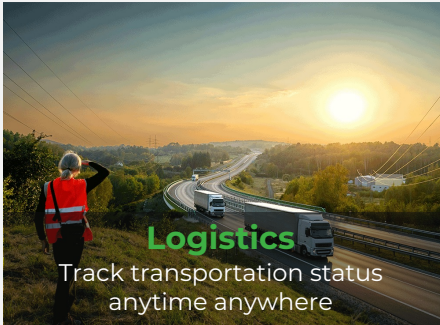
Anytime, anywhere sense your vehicle.

# InVehicle T320 Series

Vehicle Telematics



The Vehicle Telematics320 (VT320) is a robust tracking device designed for harsh environments. It combines LTE and GNSS for real-time location tracking, with 3D gyroscope. VT320 with multiple I/O interfaces, it can remotely monitor vehicle peripherals and supports standard protocols like OBD-II, J1939, and J1708 for operational insights and preventive maintenance. Its IP66 protection ensures durability, while low power consumption makes it ideal for extensive use by fleet managers to enhance safety and efficiency.



## Solution

**LTE CAT-M /I**  
Low power, reliable communications



**High Precision GNSS**



**Power Management**  
Sleep Mode;  
Ni-MH 1200mAh Battery



**Accelerometer**  
Driving behaviors and collisions monitoring



**IP66 Protection**



**9~48V**  
Adaptable to various vehicle power



**Vehicle Diagnostics**  
OBD-II, J1939 and J1708



**Extensive I/O**



## Features and Advantages



### High Performance Asset Tracking Gateway

Equipped with LTE CAT M1 and CAT 1, the VT320 offers dependable, energy-efficient connectivity. Its integrated GNSS module and inertial navigation enable precise, real-time location tracking, while the onboard gyroscope monitors driving behavior to enhance road safety.



### Extensive Interfaces, Better Integration with Vehicles

Built with dual CAN Bus, the VT320 is perfect for vehicles like heavy equipment. It supports common vehicle diagnostic protocols such as OBD-II J1939 and J1708.

Extensive interfaces including serial ports, I/O, Bluetooth, 1-Wire.



### Multiple IoT Cloud Services Supported

AWS, Azure, Wialon, ThingsBoard, MQTT Cloud, Customer Private Cloud, etc.



### Continuous and Reliable Operation

Cache which over 30K location records, freeing you from concerns about data loss when Internet connection is unavailable.



### Purpose Designed for Vehicles

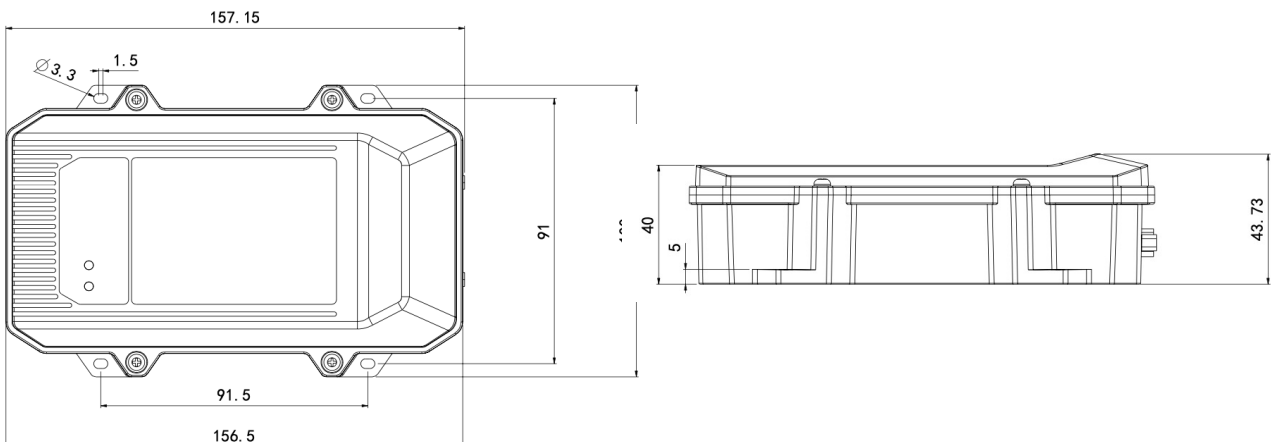
The VT320, with IP66 rating, works across a 9~48V power range and continues to operate on its 1200mAh battery in off-vehicle mode, within a -40~85° C temperature range.



### Easy for Installation

With built-in cellular and GNSS antennas, the VT320 is easy for installation and deployment on the road.

## Dimensions (mm)



Dimensions: 157.15\*100\*43.73 (mm)

# Product Specifications

## InVehicle T320 Hardware Specifications

### Network Type

Cellular	LTE CAT M
Antenna Interface	LTE FPC built-in antenna Ceramic built-in antenna ( GNSS Bluetooth antenna )

### GNSS (Global Navigation Satellite System)

Satellite Support	GPS Galileo Beidou GLONASS
Channel	72 channels
Sensitivity	-167 dBm, initial positioning time 26s
Tracking Sensitivity	-157 dBm (Hot start); -148 dBm (Cold start)
Location Accuracy	2.5m (CEP50)
Update Frequency	0.25 Hz ~ 10 MHz Configurable

### Intertia Sensor

Acceleration	Measurement range: $\pm 2 / \pm 4 / \pm 8 / \pm 16g$
Angular Velocity	Measurement range: $\pm 125 / \pm 250 / \pm 500 / \pm 1000 / \pm 2000dps$

### Bluetooth

Version	Bluetooth 4.1
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### Environment

Operating Temperature	--40° C to 85° C
Humidity	95% RH @ 50 °C non-condensing
ESD	IEC 61000-4-2 (4KV test)
Working Voltage	9-48V DC

### Battery Parameter

Capacity	1200mAh
Battery Material	Ni-MH
Working Temperature	Charging: 0 ~ 45 °C; Discharging: -40 ~ 85 °C
Storage Temperature	For 1 month: -40 °C ~ 55 °C; For 1 year : - 40 ~ 35 °C

### Mechanical Features

Shell Material	Engineering plastic+engineering plastic alloy (PC+ABS)
Dimensions & Weight	Approximately 158 x 100 x 44 mm
Protection Rating	IP66

### Software Service

Cloud platform	AWS IoT, Azure IoT, Aliyun IoT, Wialon, Traccar, GPSWOX, WhiteLabel Tracking, Thingsboard, customer platform
Transport Protocol	TCP, UDP HTTP, MQTT
Vehicle Data	OBDII, J1939, J1979, J1708
RS232/RS485	Transparent, Modbus protocol data acquisition
Event Alarm	Collision detection、Motion detection、Overspeed、IO change、ignition signal detection etc. Report support SMS or FlexAPI over TCP/UDP/MQTT
ELD	Forward vehicle data via BLE

### Certification

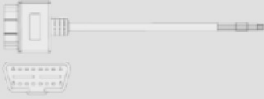

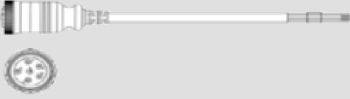
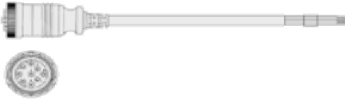



Certification	FCC, IC, PTCRB, VZW, ATT, T-Mobile
Warranty	3 years

Note: The functions marked with \* are not available yet.

## Ordering Guide

Model	Model code: VT320-<WMNN> <WMNN>: Type & Module
VT320-FQ02	LTE Cat M1: LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/ B14/B18/B19/ B20/B25/B26/B27/ B28/B66/B85

## Accessories

Cable	Order Code	Diagram	Specifications
ODB 16PIN Test Cable	SCAB000399		ODB 16PIN interface test line, Cable standard UL2464, wire length 1500mm
26 PIN Cable	SCAB000370		The cable has P1 and P2 ends; P1 is 26PIN female, connected to VT320; P2 is open end, which requires a 9-48V adaptor. Suitable for engineering environments and indoor tests.
J1939 6PIN Test Cable	SCAB000409		J1939 6PIN interface test line, Cable standard UL2464, wire length 1500mm
J1939 9PIN Test Cable	SCAB000410		J1939 9PIN interface test line, Cable standard UL2464, wire length 1500mm
Quick terminal - 3in3out	ECON060255		Rated voltage 600V, rated current 30A, 40*18.6*14.5mm、 Flame retardant grade V0.
EU Power adapter 12V/2A	APWR000121		Switching power supply - 12V/2A - round connector - vertical (European standard) - DC line length 1.5M Office test use.
US Power adapter 12V/2A	APWR000122		Switching power supply - 12V/2A - round connector - vertical (US standard) - DC line length 1.5M Office test use.

## About Us

InHand Networks is a leading IoT solutions provider founded in 2001, dedicated to driving digital transformation across industries and empowering customers to unlock their full potential and achieve accelerated growth.

We specialize in delivering industrial-grade connectivity solutions for diverse sectors, such as enterprise networks, industrial and building IoT, digital energy, smart commerce, and mobility. Our comprehensive product portfolio and services cater to various applications worldwide, including smart manufacturing, smart grid, intelligent transportation, smart retail, etc. With a global footprint spanning over 60 countries, we serve customers in China, the United States, France, Germany, the United Kingdom, Italy, and beyond.



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